

□ Regeneration for reverse-osmosis membranes

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AB An inorg. or org. compd. contg. soln. is fed into the solute side of a spent membrane and pressurized to transfer the solvent through the membrane. Then a gas or liq. is passed through the unit, and the membrane is treated with enzymatic agent (A) and complexing agent (B) or chelating agent (C). Optionally, A follows B and/or C. The regeneration is achieved simply and efficiently. Thus, a membrane, used 500 hr, was flushed with deionized water, a soln. (pH 3.5) contg. (B) EDTA [60-00-4] 0.4 and citric acid [77-92-9] 0.2% was circulated in the cell at 0.6 kg/cm², then N was replaced with deionized water, and this processes were repeated 3 times. An air-B mixt. was circulated in the cell at 0.4-0.5 kg/cm² for .apprx.15 sec, then the pressure was reduced to 0 kg/cm². This process was repeated 10 times. After treatment, the membrane had 97% of its original permeability to tap water.